

Application Number 10/599035
Response to the Office Action dated 01/07/2008

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REMARKS

Favorable reconsideration of this application is requested in view of the following remarks.

Claim 1 has been amended to clarify raw materials and include a range of temperature as supported by the specification at page 8, lines 4-5 and page 9, lines 8-11 and 17-19 in addition to editorial revisions.

Claims 2 has been amended editorially.

Claims 18 and 19 have been canceled without prejudice.

Claim 20 has been added as supported by the specification at page 13, lines 11-14 and Fig. 6 and claim 2.

Claims 1 and 2 have been rejected under 35 U.S.C. 112 as being insufficient antecedent basis for limitations in the claims. Applicants respectfully traverse this rejection.

Claims 1 and 2 have been amended to include articles as suggested by the Examiner. Therefore, this rejection is moot and should be withdrawn.

Claims 6-8 have been rejected under 35 U.S.C. 102(b) as being anticipated by Lundberg (U.S. Patent No. 4,349,407). Applicants respectfully traverse this rejection.

Lundberg discloses a temperature in the range of 1300 °C to 1500 °C and as high as 1505 °C at which silicon carbide (SiC) dissolves in lithium in order to grow SiC single crystal (see coln. 2, lines 33-35 and 52-54). In contrast, in order to obtain a silicon carbide single crystal claim 1 requires that firstly, starting materials of silicon and carbon instead of SiC and secondly, the temperature at which silicon and carbon are dissolved in

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alkali metal flux be 1000 °C or lower. Therefore, claim 1 and accordingly claims 6-8 are distinguished from the reference, and the rejection of claims 6-8 should be withdrawn.

Claims 18 and 19 have been rejected under 35 U.S.C. 102(b) as being anticipated by Carter et al. (U.S. Patent No. 5,718,760). Applicants respectfully traverse this rejection.

Claims 18 and 19 have been canceled. Therefore, the rejection is moot and accordingly, should be withdrawn.

Claims 1-5, 9-13, and 17 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Lundberg (U.S. Patent No. 4,349,407) in view of Shockley (U.S. Patent No. 3,053,635), further in view of Perusek (U.S. Patent No. 3,669,763). Applicants respectfully traverse this rejection.

Applicants respectfully note that Perusek is recited by the Examiner in the comments on this rejection but does not appear in the statement of this rejection. Applicants understand from the context of the comments that this rejection is further in view of Perusek as shown in the statement provided above. Claim 1 is distinguished from Lundberg as discussed above. Shockley discloses use of silicon and carbon in the solution in addition to a seed SiC (16) (see coln. 1, lines 45-48 and 55-59; and coln. 2, lines 16-19). However, Shockley does not disclose or suggest a method forming SiC at 1000 °C or lower but discloses the temperature of 1420 - 1700 °C to grow SiC crystals (see coln. 2, lines 52-54). The temperature range of 1420 - 1700 °C is much higher than the maximum temperature of claim 1, i.e., 1000 °C, and higher than the range of temperature disclosed by Lundberg, 1300 °C to 1500 °C. Therefore, Shockley does not suggest or motivate those skilled in the art to reduce the temperature below the range disclosed by Lundberg. Further, Perusek discloses temperatures of ca. 1540 °C and 2000 °C or higher to obtain growth of SiC crystals (see coln. 2, 46-55 and 58-60) and does not disclose or suggest the temperature of 1000 °C or lower. Therefore, Perusek does not suggest or motivate the skilled in the art to reduce the temperature below the range disclosed by Lundberg, as discussed above for Shockley. Accordingly, neither Shockley

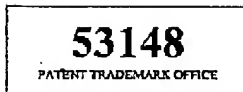
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nor Perusek remedies the deficiencies of Lundberg, and thus, the rejection of claims 1-5, 9-13, and 17 should be withdrawn.

In view of the above, Applicants request reconsideration of the application in the form of a Notice of Allowance.

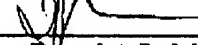


Dated: April 3, 2008

DPM/my/ad

Respectfully submitted,

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